

A new remarkable species of the genus *Bucculatrix* (Lepidoptera: Bucculatricidae) from the Primorsky Territory (Russian Far East)

Новый необычный вид рода *Bucculatrix* (Lepidoptera, Bucculatricidae) из Приморского края (Дальний Восток России)

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Bucculatrix lovtsovae sp. nov., which is characterized by a unique character, well-marked asymmetry of valvae in the male genitalia, is described from the Russian Far East (Primorsky Territory).

Bucculatrix lovtsovae sp. nov., характеризующийся уникальным признаком – хорошо выраженной асимметрией вальв в гениталиях самцов, описывается с Дальнего Востока России (Приморский край).

Key words: bucculatricid moths, taxonomy, male genitalia, asymmetry, Russian Far East, Lepidoptera, Bucculatricidae, *Bucculatrix*, new species

Ключевые слова: кривоусые крохотки-моли, таксономия, гениталии самца, асимметрия, Дальний Восток России, Lepidoptera, Bucculatricidae, *Bucculatrix*, новый вид

INTRODUCTION

The bucculatricid fauna of the Primorsky Territory of Russia incorporates 25 species of the genus *Bucculatrix* (Baryshnikova, 2008a), which were predominantly described by the author of this communication. In addition, the recent revision of the Japanese representatives of the genus revealed 23 species to occur in this country (Kobayashi et al., 2010), including most of the species known from the Russian Far East. Notably, the specimen under study collected in Primorsky Territory is sharply diverged from all the other East Asian bucculatricids, exhibiting unusual character never recorded in this genus, namely the asymmetry of the male genitalia.

Order LEPIDOPTERA

Family BUCCULATRICIDAE

Bucculatrix Zeller, 1839

Bucculatrix lovtsovae sp. nov. (Figs 1, 2)

Holotype. Male; **Russia**, Primorsky Territory, Lazo Distr., Lazovsky Natural Reserve, America Cordon, 28 May 2009, leg. Yu.A. Lovtsova. The type specimen is kept at Zoological Institute, Russian Academy of Sciences, St Petersburg.

Description. Male (Fig. 1). Wingspan 12 mm. Head, tuft, thorax, tegulae and eye caps white. Antennae white, with dark brown annulations. Fore wing white, irregularly covered with beige scales mixed with darker scales at base near costal margin and



Fig. 1. *Bucculatrix lovtsovae* sp. nov., holotype, male, general view.

in outer field. Two costal and one dorsal beige blotches densely covered with darker scales. Several black scales located within dorsal blotch, in outer field, and near wing apex. Fringes whitish, with admixture of darker scales apically. Hind wing grey, with whitish fringes.

Male genitalia. Genital ring (annulus) pronouncedly sclerotized (Fig. 2). Tegumen laterally covered with long thin setae on dorsal and ventral sides; tegumenal lobes small, widely spaced, apically pointed. Vinculum large, markedly sclerotized, triangular; its distal semicircular lobe bears one robust triangular median sclerite. Aedeagus nearly as long as valvae, curled basally. Valvae distinctly asymmetrical: left valva bilobate, being divided at 1/3 of its length into lower (shorter and wider) rounded part and three-times longer and nearly half narrower upper part. Right valva narrowly triangular; its lower margin with two prominences: more pronounced basal one and another, less developed and located before middle of valva. Both valvae provided with finger-shaped apical processes. Eversible scale sac

in male abdomen small, transversely oval; its scales slender.

Female unknown.

Comparison. The new species is similar to the European *Bucculatrix rhamnifolia* Herrich-Schäffer, 1855 in its large size, wing pattern, and shape of the male genitalia (especially by reduced, pointed lobes of the tegumen, a widely-triangular, robust vinculum, and a comparatively short aedeagus). The described species also shows similar genital characters with *B. albedinella* (Zeller, 1839) and *B. altera* Seksjaeva, 1989, both species occurring in Primorsky Territory (Baryshnikova, 2008a), but differs in the fore-wing markings. The male genitalia of the new species well differs from those of all three species-in-comparison by the absence of cornuti in the aedeagus and, particularly, by the asymmetry of valvae. This peculiarity is unique for the representatives of the genus *Bucculatrix*.

Remarks. The new species may be associated with the *albedinella* species-group of this genus (Baryshnikova, 2008b) on the basis of characters of the male genitalia as well

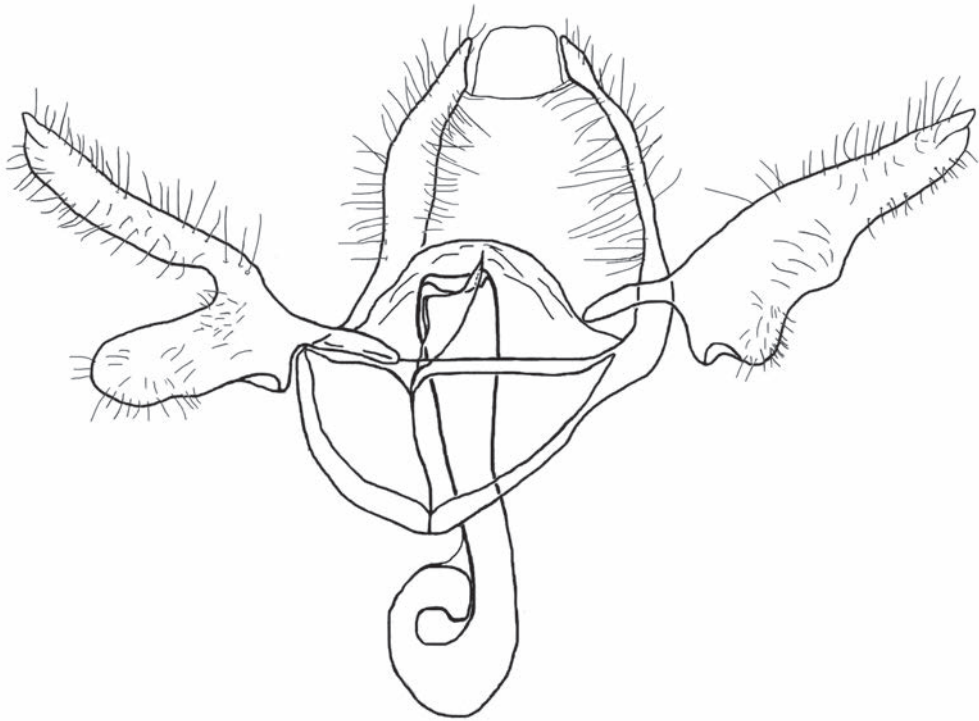


Fig. 2. *Bucculatrix lovtsovae* sp. nov., holotype, male genitalia.

as with the “species-group 4” (Kobayashi et al., 2010) defined in the same way. A valuable apomorphic character (antevaginal plate with two caudally directed outgrowths) for representatives of the *albedinella* species-group provides female; however, it remains unknown for the new species.

Etymology. The species is named in honour of Yuliya Aleksandrovna Lovtsova, Russian lepidopterologist collecting the moth.

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RETERENCES

- Baryshnikova S.V.** 2008a. Fam. Bucculatricidae. In: **Sinev S.Yu.** (ed.). *Katalog Cheshuekrylykh Rossii* [Catalogue of the Lepidoptera of Russia]: 43–51. St Petersburg-Moscow: KMK Scientific Press Ltd. (In Russian).
- Baryshnikova S.V.** 2008b. Systematics and phylogeny of the genus *Bucculatrix* (Lepidoptera: Bucculatricidae) with special attention to larval mode of life and trophic relationships. *Trudy Zoologicheskogo Instituta Rossijskoj Akademii Nauk* [Proceedings of the Zoological Institute of the Russian Academy of Sciences], **312**(1/2): 95–113. (In Russian).
- Kobayashi Sh., Hirowatari T. & Kuroko H.** 2010. A revision of Japanese species of the family Bucculatricidae (Lepidoptera). *Transactions of the Lepidopterological Society of Japan*, **61**(1): 1–57.

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